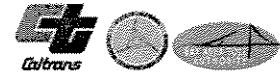


Item2b

October 31, 2005 Conf. Call Minutes



Toll Bridge Program Oversight Committee

MINUTES

Committee Conference Call

October 31, 2005

Meeting convened: 4:00 p.m.

I. Addendum No. 3

- The items to be included in Addendum No. 3 were reviewed by each member separately based upon input from Caltrans and respective staff.
- Approved

II. Quarterly Report Format

- The format of the 3rd Quarter Report was reviewed and discussed.
- Approved

Adjourned: 4:15 p.m.

APPROVED BY:

WILL KEMPTON, Director
California Department of Transportation

Date

DIANE C. EIDAM, Executive Director
California Transportation Commission

Date

STEVE HEMINGER, Executive Director
Bay Area Toll Authority

Date

Item2c

November 8, 2005 Conf. Call Minutes



Toll Bridge Program Oversight Committee

MINUTES

Committee Conference Call

November 8, 2005

Meeting convened: 3:00 p.m.

I. Addendum No. 3 - additional 6 items

- When Addendum No. 3 was approved by conference call on October 31, 2005, it did not include the details on 6 additional items. Information on these items was provided to the TBPOC members.
- The inclusion of these 6 additional items into Addendum No. 3 is approved.

Adjourned: 3:15 p.m.

APPROVED BY:

WILL KEMPTON, Director
California Department of Transportation

Date

DIANE C. EIDAM, Executive Director
California Transportation Commission

Date

STEVE HEMINGER, Executive Director
Bay Area Toll Authority

Date

Item5b

TY Lin/Moffatt & Nichol Settlement

Memorandum

*Flex your power!
Be energy efficient!*

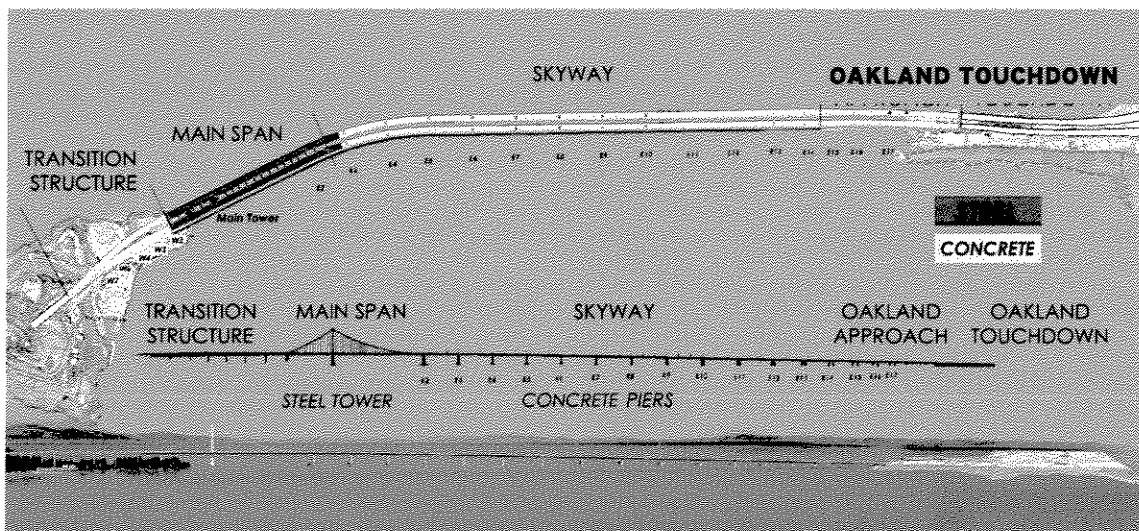
To: RICHARD LAND
Chief Engineer

Date: November 28, 2005

File: 59A0040

From: JON TAPPING
Interim SFOBB East Span Project Manager
District 4

Subject: Proposed Settlement of the TY Lin/Moffat & Nichol, a Joint Venture, Request for Change



Summary:

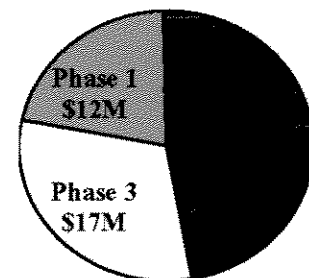
Based upon the discussion contained in this report, a proposed settlement in the amount of \$4,934,889 is recommended to fully resolve certain design contract changes and disputes on Architectural and Engineering (A&E) Contract No. 59A0040 with consultant TY Lin/Moffat & Nichol, a Joint Venture (JV).

Background:

In January 1998, the California Department of Transportation (Department) awarded Contract Number 59A0040 to the JV. The original contract was a six-year \$55 million contract for A&E services for the replacement of the San Francisco-Oakland Bay Bridge (SFOBB) East Span structural design work.

The original JV contract was comprised of three major phases:

- **Phase One** consisted of on-call services to provide 30 percent Plans, Specifications, and Estimate (PS&E) packages for two replacement alternatives under consideration



**Original Contract
Allotment \$55M**

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- **Phase Two** consisted of fixed-price services to complete 100 percent PS&E for the chosen alternative
- **Phase Three** consisted of on-call services to provide bidding and construction support services as needed.

In July 2001, Amendment No. 1 of the contract was approved for an additional \$26 million and four years, which extended the contract to June 2008. This amendment was necessary as a result of changes requiring additional design services and construction support.

Amendment No. 2 of the contract was approved for an additional \$55 million, including \$10 million for contingencies to cover changes, such as an increase in shop drawings and additional co-location of design and construction support staff (i.e., "mission control") at the project site.

The funding for the settlement proposed herein is included in Amendment No. 2 of the contract and has been budgeted in the Fiscal Year 05/06 Capital Outlay Support allocation. The total current contract allotment is \$136 million. Listed in the table below is the current status of the contract with all amendments.

| | Total | Begin Date | Expiration Date |
|-------------------|---------------|-------------------|------------------------|
| Original Contract | \$ 55M | 1/23/98 | 6/30/04 |
| Amendment 1 | \$ 26M | 1/23/98 | 6/30/08 |
| Amendment 2 | \$ 55M | 7/1/04 | 6/30/10 |
| TOTAL | \$136M | 1/23/98 | 6/30/10 |

Due to the design selection process, two additional 30 percent design alternatives were required. In lieu of seismic safety, the Department and the Engineering Design Advisory Panel (EDAP) saw the urgency to have the 30 percent design for the selected Self-Anchored Suspension Bridge completed within a very short period. This reduced 30 percent design period contributed to added costs incurred by the JV, as the condensed 30 percent design likely did not meet the requirements of a 30 percent design. By not having a complete 30 percent design, the full extent of the complexity of the design was not known at the time the fixed price phase was negotiated with the JV.

In addition, during the Phase Two design (i.e., the fixed price) work, the JV participated in an unprecedented number of studies, reports, and presentations to facilitate consensus among numerous stakeholders, such as the US Navy and US Army Corps of Engineers. These studies and delays led to out-of-sequence design work, stops and starts on the design, and constant re-work of the design. Phase Two design work was started in November 1998 and was originally scheduled to be completed in 18 months. The completion of Phase Two work was delayed for these reasons and the actual design work extended over a much longer time frame (over two additional years).

In March 2002, the JV submitted to the Department a Request for Change for added design costs incurred during Phase Two work. The original amount submitted was approximately \$16.5 million. The Request for Change consisted of 49 separate elements. Through the East Span Project Manager

and Contract Manager, the Department resolved 36 of the 49 elements as agreed to changes to Phase Two of the contract and payment was made under Task Order No. 3 and its supplements.

The remaining elements of the Request for Change have been given an exhaustive review by the Department. This report provides the background to the contract, the basis of the Request for Change elements, the status of the elements, and the proposed settlement amounts. While the Department considers that additional compensation is due the JV as a result of contract changes related to the Request for Change, it considers such changes to be within the scope of the A&E contract.

The JV has indicated that it would accept the settlement recommendation provided in this report as full and complete settlement of its Request for Change. There is some urgency in resolving this issue due to the time required for the extensive analysis and negotiations. As of Fall 2005, the JV has not requested interest on the outstanding amounts, but this could change if a mutual resolution is not reached soon.

The design of the SFOBB East Span is comprised of seven Packages, which are listed below.

Package 1: Project Management and Administration

Package 2: Meetings and Coordination

Package 3: Global Design Considerations

Package 4: YBI Transition Structures and Detours Final Design

Package 5: Main Span Self-Anchored Suspension (SAS) Bridge Final Design

Package 6: Skyway Final Design

Package 7: Oakland Approach Structural or Oakland Touchdown (OTD) Final Design

Package 8: Existing SFOBB East Span Demolition Final Design

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The breakdown and status of the Request for Change is as follows:

| Item | Description | Total Re- quested | Previously Paid and Fully Resolved | Proposed Settlement Amount |
|---|--|------------------------|--|--|
| Self-Anchored Suspension Span | | | | |
| SAS-1 | Drawing Production | \$3,893,051 | | \$1,806,257 |
| SAS-2 | Specifications Effort | \$154,000 | \$96,800 | Fully resolved, no additional payment. |
| SAS-3 | Buy America Accommodation | \$429,000 | \$11,800 | Fully resolved, no additional payment. |
| SAS-4 | SAS/YBI Transition | \$88,000 | | \$0 (see Report details). |
| SAS-5 | Review of Geotechnical Report | \$19,200 | \$9,200 | Fully resolved, no additional payment. |
| SAS-6 | Hinges A and K | \$206,000 | | \$0 (see Report details). |
| SAS-7 | Cable Maintenance System | \$24,700 | \$8,800 | Fully resolved, no additional payment. |
| SAS-8 | Seismic Ground Motion | \$694,300 | \$399,121 | Fully resolved, no additional payment. |
| SAS-9 | Foundation Design Effort | \$59,767 | \$17,622 | Fully resolved, no additional payment. |
| SAS-10 | Utility Platform | \$20,300 | \$15,407 | Fully resolved, no additional payment. |
| SAS-11 | Change in Future Light Pipe Location | \$16,000 | | \$0 (see Report details). |
| SAS-12, 14, 15 | Design for Increase in Dead Load | \$507,610 | | \$0 (see Report details). |
| SAS-13 | Architectural Change in East Anchorage | \$58,850 | | \$0 (see Report details). |
| SAS-16 | Fender System for Skyway and SAS | \$31,883 | \$25,290 | Fully resolved, no additional payment. |
| SAS-17 | Elevator Redesign | \$29,131 | \$29,131 | Fully resolved, no additional payment. |
| SAS-18 | Main Span Dehumidification | \$24,686 | \$18,240 | Fully resolved, no additional payment. |
| Main Span Subtotal | | \$6,256,478 | \$631,411 | \$1,806,257 |
| Packages 2,3,5,6 (refer to Page No. 3) | | | | |
| Packages 2,3,5,6 | Schedule Disruption/Inefficiency | \$4,520,327 | | \$670,483 |
| | Escalation | (\$ Included above) | \$268,797 | Fully resolved, no additional payment. |
| Subtotal | | \$4,520,327 | \$268,797 | \$670,483 |

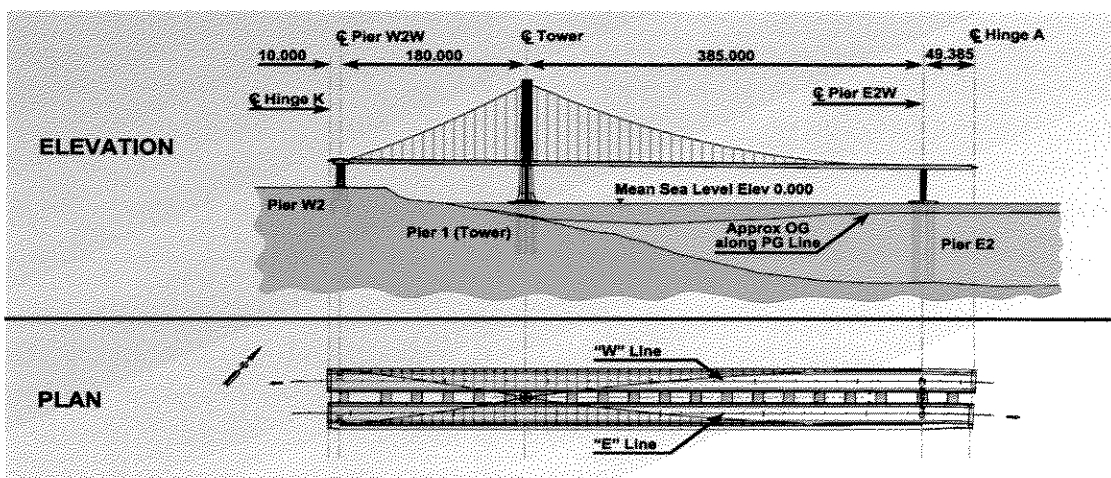
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| Item | Description | Total Re- quested | Previously Paid and Fully Resolved | Proposed Settlement Amount |
|---|--|----------------------|--|---|
| Skyway | | | | |
| Skyway 1 | Review Comments | \$397,093 | \$165,000 | Fully resolved, no additional pay- ment. |
| Skyway 2 | SSPRP | \$165,024 | \$40,000 | Fully resolved, no additional pay- ment. |
| Skyway Subtotal | | \$562,117 | \$205,000 | |
| Yerba Buena Island Transition Structures | | | | |
| YBI IV-1 | Inefficiency Due To Delay And Disruption | \$1,548,326 | | \$1,322,235 |
| YBI IV-2 | Escalation Due to Delay | \$431,100 | \$174,762 | Fully resolved, no additional pay- ment. |
| YBI IV-3 | Redesign WB Transition Structure due to Reduction in the number of Outrigger Bents in Frame WB1 from 7 to 5 | \$137,320 | \$127,094 | Fully resolved, no additional pay- ment. |
| YBI IV-4 | Redesign WB Transition Due to Elimination of the WB On-ramp Stub-out | \$99,338 | \$87,651 | Fully resolved, no additional pay- ment. |
| YBI IV-5 | Revise Alignment of the WB Detour After Start of Final Design | \$103,233 | \$93,494 | Fully resolved, no additional pay- ment. |
| YBI IV-6 | Study to Replace Steel Isolation Span on Transition Structures | \$99,816 | | \$99,816 |
| YBI IV-7 | Final PS&E for the 60-m all Con- crete Cantilever Option | \$556,623 | | \$556,623 |
| YBI IV-8 | Redesign EB On-ramp Due to Elim- ination of the Hinge W 10LA | \$56,097 | \$38,956 | Fully resolved, no additional pay- ment. |
| YBI IV-9 | Redesign EB On-ramp Due to Relo- cation of Abutment and Bent W10 to facilitate Southgate Road Realign- ment | \$13,245 | \$13,245 | Fully resolved, no additional pay- ment. |
| YBI IV-10 | Revise EB Transition Structure De- sign to Accommodate 2-stage Con- nection Due to Conflict with Existing Pier E1 and South Edge of EB Structure | \$15,095 | \$10,713 | Fully resolved, no additional pay- ment. |
| YBI IV-11 | Revise Temporary Detour Structures Foundations Due to Changes in Geotechnical Information and Bed- rock Contours | \$57,947 | \$57,947 | Fully resolved, no additional pay- ment. |
| YBI IV-12 | Revise Retaining Wall at Southgate road Due to Alignment Changes | \$50,643 | \$50,643 | Fully resolved, no additional pay- ment. |

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| Item | Description | Total Re- quested | Previously Paid and Fully Resolved | Proposed Settlement Amount |
|---|--|----------------------|--|--|
| Yerba Buena Island Transition Structures (cont.) | | | | |
| YBI IV-13 | Perform Non-linear Inelastic Analysis of Viaduct Footings | \$67,199 | \$58,434 | Fully resolved, no additional payment. |
| YBI IV-14 | Perform Inelastic Finite Element Analysis of Viaduct Footings | \$16,705 | \$13,784 | Fully resolved, no additional payment. |
| YBI IV-15 | Redesign Bike Path Hand Railing on EB On-ramp Transition Structures | \$21,426 | \$21,426 | Fully resolved, no additional payment. |
| YBI IV-16 | Revise Bent W4R for Change in Bedrock Contour | \$9,739 | \$9,447 | Fully resolved, no additional payment. |
| YBI IV-17 | Revise Viaduct Foundations at Bents 45-47 Due to change in Bedrock Contours | \$3,896 | \$3,896 | Fully resolved, no additional payment. |
| YBI IV-18 | Evaluate Proposed Geometric Revisions to EB Detour and EB Transition Structure | \$11,687 | \$11,687 | Fully resolved, no additional payment. |
| YBI IV-19 | Revise Transition Structures Due to Geotechnical changes in South Edge of EB Structure | \$15,582 | \$7,791 | Fully resolved, no additional payment. |
| YBI IV-21 | Redesign Transition structures Due to Revisions to the Topo Survey | \$164,079 | \$159,674 | Fully resolved, no additional payment. |
| YBI IV-24 | Un-reimbursed YBI Structure Cost January 1, 2002 to June 30, 2003 | \$812,857 | | \$479,475 |
| Yerba Buena Island Structures Subtotal | | \$4,291,953 | \$940,644 | \$2,458,149 |
| Oakland Approach Structures | | | | |
| OTD VII-1 | Additional Effort for Redesign of EB Hinge E | \$187,861 | \$80,833 | Fully resolved, no additional payment. |
| OTD VII-2 | EB and WB Detailing Consistency | \$109,141 | \$13,631 | Fully resolved, no additional payment. |
| OTD VII-3 | Redesign of Bike Path Hand Railing on EB Oakland Approach Structure | \$18,941 | \$18,941 | Fully resolved, no additional payment. |
| OTD VII-4 | Additional Study to Demonstrate the Effect of Lateral Solid Spread at Bents and Slab Bridge on the SSPRP | \$19,478 | \$17,530 | Fully resolved, no additional payment. |
| OTD VII-5 | Un-reimbursed OTD Structure Cost January 1, 2002 to Expedite LAN & M&N | \$320,000 | \$170,882 | Fully resolved, no additional payment. |
| OTD VII-6 | Un-reimbursed OTD Structure Cost January 1, 2002 to Expedite WKO & M&N | \$204,212 | \$198,486 | Fully resolved, no additional payment. |
| Total | | \$16,490,508 | \$2,546,155 | \$4,934,889 |

SAS Change Request



The SAS portion of the San Francisco-Oakland Bay Bridge

Claim SAS-1 Drawing Production

The fixed price Phase Two portion of the contract for the SAS was based on estimating the level of effort for the design, analysis, independent check, plan preparation, specifications and estimates, all of which are directly or indirectly tied to the number of anticipated plan sheets. In Section 5.3 of the fixed price agreement, under Plan Preparation, a list of the anticipated structure plan sheets is referenced (this list shows a total of 317 plans). The 317 structure plan sheets represent the level of design effort originally anticipated by both the JV and the Department. Ultimately, the SAS design contained 779 plan sheets. This is a significant increase and represents an unanticipated level of effort for the design, analysis, independent check, plan preparation, specifications, and estimates.

Payment was made for Supplements and Work Authorization Requests (WAR) authorized during the design phase. The JV is requesting payment to compensate for the preparation of the additional 245 plan sheets that were not identified in the original scope of work.. Using the original negotiated costs for the effort for design, plan preparation, and independent check, this compensation was calculated at \$15,891 per plan sheet for a total of \$3,893,051. A proposed settlement of \$1,806,257 represents the added amount of design and plan preparation. The Department demonstrated during negotiations that the JV was responsible for many of the design changes. During the negotiations to resolve this element, the Department's engineers, along with the JV's engineers, evaluated each sheet and assigned hours for design, analysis and detailing. This evaluation became the basis for the proposed settlement.

| | |
|----------------------------|-------------|
| Claimed Amount | \$3,893,051 |
| Proposed Settlement Amount | \$1,806,257 |

Claim SAS-2 Specification Effort

The JV contended that the negotiated level of effort for the specifications assumed a standard review process and a certain number of special provisions. After the fixed price was negotiated, the Department, incorporating lessons learned from other projects, adopted new requirements for the specification development. In addition, the SAS is comprised of several components which were new to both the Department and the JV. This additional review process and complex specifications required several additional iterations to finalize the specifications.

| | |
|-----------------|-----------|
| Claimed Amount | \$154,000 |
| Previously Paid | \$96,800 |

Claim SAS-3 Buy America Accommodations

The East Span was federalized in January 28, 2000, after the fixed price was negotiated. This required additional effort to redesign/modify design details, specifications, and cost estimates to accommodate the Federal requirements.

| | |
|-----------------|-----------|
| Claimed Amount | \$429,000 |
| Previously Paid | \$11,800 |

Claim SAS-4 SAS/YBI Transition

During the first part of Phase Two of this contract, the Yerba Buena Island (YBI) transition structure design was, at times, in a state of flux because of several unknown parameters such as the soil conditions, foundation type recommendations, seismic ground motions, SAS/YBI seismic and service demand interaction, and aesthetic compatibility between the YBI structure and the SAS. These unknown parameters were primarily due to the inability to access YBI when anticipated due to the dispute between the Department and the City of San Francisco over the alignment of the East Span. Without these defined parameters, the Department directed the JV to assume parameters, with the expectation that the JV would be required to review the design once the actual data was received. As a result, several SAS/YBI structural system interfaces were evaluated after the final geotechnical, seismic, and service-loading data was obtained.

The JV performed several investigations of the YBI/SAS structural design interface, including the steel drop-in girder "isolation" option between YBI-W3 and SAS-W2 piers. Ultimately, the Department directed the JV to eliminate the isolation steel span at this transition area in order to minimize demand impact to the SAS West Pier-W2 design and to have a more aesthetically consistent design with that of the Skyway-SAS transition span.

The Department finds no merit to the additional costs for the design of the steel drop-in girder isolation option, as it was not considered an acceptable solution. The JV agreed to drop this element as part of the total resolution proposed in this report.

| | |
|----------------------------|----------|
| Claimed Amount | \$88,000 |
| Proposed Settlement Amount | \$0 |

Claim SAS-5 Review of Geotechnical Report

The JV has requested compensation for the following additional costs:

Review Geotechnical Report: This change request is for the effort related to the review of the YBI/SAS Final Geotechnical Report in relation with the design of the SFOBB-SAS (specifically the West Pier foundations). The JV received this report about 18 months later than originally planned.

Navy-Delayed Fugro/EMI YBI Drilling: This task required the design team to assume soil characteristics for the 65 percent PS&E design. The geotechnical report was later provided to the design team. This information was reviewed and incorporated into the design of the SFOBB-SAS foundations.

| | |
|-----------------|----------|
| Claimed Amount | \$19,200 |
| Previously Paid | \$9,200 |

Claim SAS-6 Hinges A and K

The JV performed the design for Hinges A and K (the interfaces between the Skyway Structure to the East and the YBI Transition Structure to the West) during Phase Two PS&E of the Main Span, the Skyway and the YBI Transition Structure. Several major changes occurred during Phase Two at both of these hinge locations. The Hinge A location was moved from the mid-span between Piers E2 and E3 (the 30 percent design location) to its present location which is about 40 meters east of Pier E2. The Hinge K location was relocated from mid-span between YBI and Pier W2 (30 percent design) to 10 meters west of Pier W2.

The JV agreed to drop this element as part of the total resolution proposed in this report.

| | |
|----------------------------|-----------|
| Claimed Amount | \$206,000 |
| Proposed Settlement Amount | \$0 |

Claim SAS-7 Cable Maintenance System

Cable & Suspender Travelers: Based on a Department request, the JV evaluated various alternatives to maintain the cables and suspenders for the SFOBB-SAS. This change request reflects the effort involved in preparing the maintenance concepts.

To date, no suspension bridge in the United States has ever included the evaluation of the maintenance of such a system in its original design contract, including the recently designed Carquinez Bridge. Nevertheless, such an effort was still considered to be substantially within the scope of the JV's contract. Because of the SAS complexities, the Department agreed with part of the claim.

| | |
|-----------------|----------|
| Claimed Amount | \$24,700 |
| Previously Paid | \$8,800 |

Claim SAS-8 Seismic Ground Motion

Seismic Ground Motions: The 30 percent design of the SFOBB-SAS was based on the pre-final ground motions. This change request is for the additional design effort required to modify the final design of the SFOBB-SAS (after 45 percent PS&E submittal) to satisfy the final seismic ground motions (Ground Motion No. 1 in particular).

The seismic ground motions were finalized just before the type selection of the signature span was made in June 1998. The preliminary design of the signature spans was therefore based on the pre-final ground motions. The preliminary design of various structural components of the SFOBB-SAS had to be checked and modified in order to meet the higher seismic demands due to the larger seismic loads (Ground Motion No. 1 was received by the JV in April 1999 – prior to the 65 percent submittal of the SAS) in order to satisfy the Design and Performance Criteria.

| | |
|-----------------|-----------|
| Claimed Amount | \$694,300 |
| Previously Paid | \$399,121 |

Claim SAS-9 Foundation Design Effort

Foundation Design Effort: After completion of the 65 percent design level and based on direction from the Department and the Seismic Peer Review Panel (SPRP), the design team evaluated various alternatives for the foundations of the SFOBB-SAS Piers. These alternatives included:

- Tower Benching Alternative at T1
- Battered piles for Pier E2

This evaluation showed that the 65 percent PS&E design originally presented to the Department was in compliance with the Design and Performance Criteria.

| | |
|-----------------|----------|
| Claimed Amount | \$59,767 |
| Previously Paid | \$17,622 |

Claim SAS-10 Utility Platform

Utility platforms are attached to the box girders of the main span. This work was designed by Parsons-Brinckerhoff (PB), which is not part of the JV. The Department authorized Parsons-Brinckerhoff to design utility platforms attached to the box girders under a separate A&E contract.

The JV was required to redesign components of the superstructure due to weight increased as a result of the design changes to the utility platform by the Department/PB.

These design changes also required additional project coordination by the JV with PB.

| | |
|-----------------|----------|
| Claimed Amount | \$20,300 |
| Previously Paid | \$15,407 |

Claim SAS-11 Change in Future Light Pipe Location

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The SFOBB East Span has been designed for a future light pipe along the superstructure. External groups requested several changes to the future light pipe location. These changes required evaluation of structural impact as well as preliminary details.

The JV agreed to drop this element as part of the total resolution proposed in this report.

| | |
|----------------------------|----------|
| Claimed Amount | \$16,000 |
| Proposed Settlement Amount | \$0 |

Claim SAS-12, 14, 15 Added Weights

In addition to the unanticipated complexity of the SAS from the 30 percent design phase, several design changes were required during the Phase Two design period. These changes include a requirement for the bikeway to accommodate maintenance vehicles; a counterweight for the one-sided bikeway; added utilities; an increase in seismic loading; prohibition of post-yield buckling; and consideration of derailment protection for light rail. Consequences of the increased weight include changing cable design type to parallel wire strand, changing location of the anchorage, and changing the splay pattern.

As a result, the JV developed several major design iterations for the design of the orthotropic deck. The JV contends that it has not been fully compensated for these design iterations and the 30 percent design did not contemplate that the complexity of the orthotropic deck sections would create unanticipated dead load.

The JV agreed to drop this element as part of the total resolution proposed in this report.

| | |
|----------------------------|-----------|
| Claimed Amount | \$507,610 |
| Proposed Settlement Amount | \$0 |

Claim SAS-13 Architectural Change in East Anchorage

The SFOBB East Span design was driven, in part, by the architectural demands of the community. This demand caused a change to the east anchorage during the Phase Two design work. Saddle housings of the cable were extended to support new belvederes at Pier E2 (EB), which subsequently required changes to the bikeway structure.

The JV agreed to drop this element as part of the total resolution proposed in this report.

| | |
|----------------------------|----------|
| Claimed Amount | \$58,850 |
| Proposed Settlement Amount | \$0 |

Claim SAS-16 Fender System for Skyway and SAS

In response to Department requests and the requests of an independent Department consultant (Ben Gerwick), the Skyway and Main Span cast in place fendering designs were performed between May and August 1999 for the 65 percent submittal. This was done prior to the finalization of the foundation design. Then, as a result of review comments, the foundation dimensions changed. The fendering was then re-

designed in January 2000. This second design required a reevaluation of vessel impact results since standoff distances had changed. The second design also changed to a pre-cast system. The third fender design resulted from additional Department input, which required minor changes to the foundation dimensions and pre-cast system.

| | |
|-----------------|----------|
| Claimed Amount | \$31,883 |
| Previously Paid | \$25,290 |

Claim SAS-17 Elevator Redesign

In response to Department architectural and maintenance comments during the course of design, the elevator location on the Main Span tower was changed four times (i.e., tower center, inside face of tower leg, outside face of tower leg, and spanning between tower legs). In addition, the elevator was changed to a custom unit, mounted between two tower legs without a drive mechanism or bracing between the legs. This change resulted in an extensive investigation of alternative elevator types and configurations, as well as coordination effort between elevator manufacturers, T.Y. Lin, Weidlinger, and the Department.

| | |
|-----------------|----------|
| Claimed Amount | \$29,131 |
| Previously Paid | \$29,131 |

Claim SAS-18 Main Span Dehumidification

The Department requested a mechanical life cycle cost analysis for dehumidification of the tower base and east anchorage. This work was not included in the original Task Order No. 3. The Department also requested that the design implement a looped cable system at the west anchorage and that an additional dehumidification system be designed to accommodate the looped anchorage. This work also was not included in the original Task Order No. 3.

| | |
|-----------------|----------|
| Claimed Amount | \$24,686 |
| Previously Paid | \$18,240 |

Claim Packages 1, 2, 3, 5, 6 Schedule Disruptions / Inefficiency / Escalation

For the purpose of this element, the disruption and inefficiency claims were negotiated separately from the escalation portion of this element. The Project Manager and Contract Manager resolved the escalation portion and made a payment of \$268,797 under Task Order No. 3, Supplement 9. The firm fixed fee for the final design of Packages 1, 2, 3, 5, and 6 utilized employee actual hourly rates for the period of 1998 and 1999, adjusted by an escalation factor to account for the fact that the work period was to be performed November 1998 and June 2000. The actual design period extended two years beyond the 18 months assumed during the negotiation for the final design fee.

Disruption and Inefficiency:

Schedule delays, caused by the inability of the Department to access YBI when anticipated, due to the dispute between the Department and the City of San Francisco over the alignment of the East Span, resulted in an increase in the design cost due to inefficiencies caused by the work starting and stopping and work being performed out of sequence.

The JV calculated the inefficiency cost by determining the dollar volume of work that was performed outside of the original schedule and applying a 25 percent inefficiency factor to evaluate the \$3,395,933 impact. Ultimately, the Department negotiated an added cost of \$670,483 due to inefficiency and disruption. This amount was established by evaluating the impact to each individual team member due to all Work Authorizations and Supplements authorized by the Department during the course of the Phase Two design. The impact factor accounts for the mobilization, demobilization and inefficiency to each design team member.

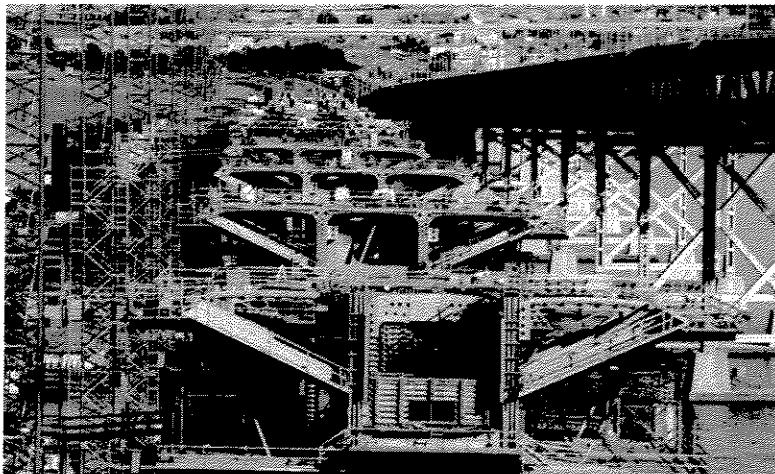
Escalation:

Phase Two design work was started in November 1998 and was to be completed in 18 months. The project was delayed and the work extended over a much longer time frame (over two years longer than originally planned). A five percent per year escalation rate was used to determine the compensation, which matches the allowance in the contract.

The escalation was negotiated as part of the settlement and paid for under Task Order No. 3, Supplemental 8.

| | |
|----------------------------|-------------|
| Claimed Amount | \$4,520,327 |
| Previously Paid | \$268,797 |
| Proposed Settlement Amount | \$670,483 |

Skyway Change Request



Claim Skyway-1 Review Comments

As part of the Phase Two design provisions, the JV assumed the lump sum scope of work that consisted of facilitated meetings which would be the method used to facilitate comments from the Department. This assumption was premised on Department's reviewers presenting their comments to the JV, after which meeting minutes would document the resolution. However, a significantly more involved review process was later adopted. This required additional effort to reconcile the comments, determine required changes from desired changes, and respond to each comment. Review comments were not provided to the JV in one submittal, but rather multiple submittals over time.

| | |
|-----------------|-----------|
| Claimed Amount | \$397,093 |
| Previously Paid | \$165,000 |

Claim Skyway-2 Seismic Peer Review Panel (SPRP)

As part of the Phase Two design, the fixed price included the JV's participation in the SPRP Meetings. The fixed price included only the JV team leaders. However, due to the extended design period, additional meetings were held above what was originally planned and the actual level of effort for this participation required numerous JV team members working over several days to prepare for and attend these meetings.

| | |
|----------------------|-----------|
| Claimed Amount | \$165,024 |
| Previously Paid Task | \$40,000 |

YBI Change Request

Claim IV-1 Inefficiency Due To Delay And Disruption

The JV seeks reimbursement for inefficiencies introduced into the design process prior to January 1, 2002, due to disrupting influences, including untimely geotechnical information, untimely roadway geometric revisions and untimely information/study requests. The work efforts to make revisions, or provide additional studies and information, were captured in previous or concurrent change requests, but the overall inefficiency created in the production of the YBI PS&E package was not.

The YBI Structures package consists of five separate plan sets, arranged according to the various distinct structures, namely:

- YBI Viaduct Modifications (Initial)
- YBI Viaduct Modifications (Final)
- YBI EB On Ramp Structure
- YBI Transition Structures
- YBI Temporary Detour Structures

Each of these structures is very unique, with few details that can be taken from common conventional designs. Moreover, there is very little repetitiveness within any of the structures.

The fixed price of \$4,031,078 (45324 man hours) was negotiated to finalize the design of the YBI Structures. This fee excluded the overall project management (covered under another package) and

assumed data developed during the Phase I efforts could be utilized for the final design. The key submittal for this package was considered to be the 85 percent (checked plans) submittal, which was originally established as August 1999 (10 months to complete the work).

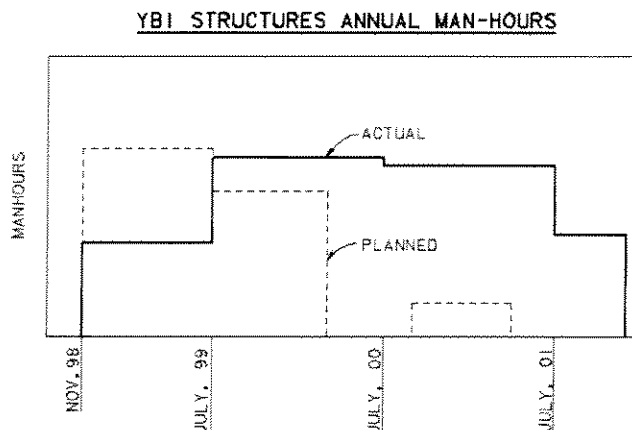
Since both the design budget (1.3 to 2.0 percent of construction cost) and the schedule (average of 22 persons for 10 months) were highly constrained, a very systematic and well-organized approach to the design process was necessary. However, the design process was interrupted numerous times during the project, most notably by the delay in obtaining geotechnical data but also by geometric revisions to the layouts, added studies, and requests for information. Despite the delays and revisions, the urgency of the project required that the design effort continue by utilizing assumptions where necessary. The 85 percent submittal was finally delivered in the Fall of 2001, approximately two years behind the original schedule.

Claimed inefficiencies were evaluated based on actual man hours expended and amounted to approximately 18.5 percent of the total man hours expended during production of the YBI Structures PS&E. This level of inefficiency was also correlated with an individual assessment of the disruptive influence of some 30 events that occurred during the PS&E process in order to establish the reasonableness of the identified inefficiency.

| | |
|----------------------------|-------------|
| Claimed Amount | \$1,546,326 |
| Proposed Settlement Amount | \$1,322,235 |

Claim IV-2 Escalation Due To Delay

The firm fixed fee for the final design of the YBI Structures utilized employee actual rates for the period July 1997 to June 1998, adjusted by an escalation factor to account for the fact that the work would be performed between November 1998 and February 2002. Since the project was delayed and the work extended over a much (approximately two years) longer time frame, an adjustment to this escalation factor is warranted. The JV seeks compensation for the escalation over the actual performance period relating to work performed during the production of the YBI Structures PS&E under the original Task Order No. 3, as well as Change Requests IV-3 through IV-5 and IV-8 through IV-19.



| | |
|-----------------|-----------|
| Claimed Amount | \$431,100 |
| Previously Paid | \$174,762 |

Claim IV-3 Redesign WB Transition Structure due to Reduction in the Number of Outrigger Bents in Frame WB1 from 7 to 5

The Department requested that the JV reduce the number of outrigger bents for architectural purposes. This work then required the redesign of the 30 percent general plan stage to be modified.

| | |
|-----------------|-----------|
| Claimed Amount | \$137,320 |
| Previously Paid | \$127,094 |

Claim IV-4 Redesign WB Transition Due to Elimination of the Westbound On-Ramp Stub-out

The Department requested that the JV remove the stub-out at the Westbound on-ramp. This required a redesign of the Westbound Frame 1 to remove the stub-out for a future ramp. The JV incurred additional costs for analysis, design, check and drafting.

| | |
|-----------------|----------|
| Claimed Amount | \$99,338 |
| Previously Paid | \$87,651 |

Claim IV-5 Revise Alignment of the WB Detour After Start of Final Design

The Department requested that the JV redesign the Westbound Detour to avoid conflicts with the historic district. The JV incurred additional costs for analysis, design, check and drafting.

| | |
|-----------------|-----------|
| Claimed Amount | \$103,233 |
| Previously Paid | \$93,494 |

Claim IV-6 Study to Replace Steel Isolation Span on Transition Structures

The 30 percent design for the YBI Transition Structures (YBI) included an expansion joint located within the interfacing span between the Transition Structure and the SAS, which required that the YBI terminate with a cantilever span of about 46 meters and that the SAS structure provide an adjoining cantilever (beyond Pier W2) of about 34 meters. This arrangement formed the basis of the fixed price negotiated in November 1998. This configuration was also included in the 45 percent submittal. In May 1999, the cantilever (beyond Pier W2) was deleted from the SAS in an effort to relieve loading on Pier W2 because this Pier was viewed from a seismic standpoint as the most critical support for the entire bridge.

With the deletion of the cantilever, some revision to the YBI interfacing was required. Two options were identified by the JV: (1) increase the length of the YBI cantilever and reconfigure the adjacent span arrangement (this would be a complete redesign of the adjacent Transition Structures frames), or (2) introduce a steel isolation span and adjust the YBI cantilever to maintain the same force demands on the Transition Structures. The JV chose the second option. The deletion of the cantilever provided the additional benefit of isolating the seismic response to the SAS from that of the YBI, since these structures have very different response characteristics.

The Department did not accept the isolation span concept and requested that the JV remove it from the design. Subsequently, the Department requested that the JV study additional options for this portion of the structure design. The JV seeks compensation for this study.

| | |
|----------------------------|----------|
| Claimed Amount | \$99,816 |
| Proposed Settlement Amount | \$99,816 |

Claim IV-7 Final PS&E for the 60-m all-Concrete Cantilever Option

Based on the study discussed in Claim IV-6, a 60 meter haunched cantilever from the YBI Structure to join the SAS was designed. The effort necessitated a redesign of the easterly frames of the YBI. The JV seeks reimbursement for these design costs.

| | |
|----------------------------|-----------|
| Claimed Amount | \$556,623 |
| Proposed Settlement Amount | \$556,623 |

Claim IV-8 Redesign EB On-Ramp Due to Elimination of Hinge W 10LA

The 65 percent design was submitted on September 15, 1999, using a hinge between the reinforced concrete Frame 1 and the post-tensioned Frame 2 of the EB On-Ramp Structure. In early February 2000, the Department requested that the hinge be eliminated to prevent displacements at the joint possibly causing maintenance problems. The change was completed in July 25, 2000, when the unchecked PS&E was submitted. The change involved new analysis, rearrangement of tendon profiles, redesign of the exterior girder, and drafting revisions.

| | |
|-----------------|----------|
| Claimed Amount | \$56,097 |
| Previously Paid | \$38,956 |

Claim IV-9 Redesign EB On-Ramp Due to Relocation of Abutment and Bent W 10 to Facilitate Southgate Road Realignment

The 65 percent design was submitted on September 20, 1999. Subsequent to this submittal, the locations of the abutment and column W10 were changed to facilitate the realignment of Southgate Road. The JV redesigned the Eastbound On-Ramp, Abutment 9 and Bent W 10, to facilitate Southgate Road realignment. The roadway designer, Parsons-Brinckerhoff (PB), completed the Southgate Road realignment.

The changes were incorporated into the JV's submittal made on July 25, 2000, as unchecked PS&E details. Additional effort was expended in making these geometric changes.

| | |
|-----------------|----------|
| Claimed Amount | \$13,245 |
| Previously Paid | \$13,245 |

Claim IV-10 Revise EB Transition Structure Design to Accommodate 2-Stage Construction Due to Conflicts with Existing Pier E1 and South Edge of EB Structure

The geometric layout of the Transition Structures neglected to allow clearance for the Eastbound Transition Structures to pass the existing location of Pier E1. This conflict necessitated developing a special design for the south exterior girder for 2-stage construction. This change required additional analysis, design, detailing and drafting for the two stages of construction.

| | |
|-----------------|----------|
| Claimed Amount | \$15,095 |
| Previously Paid | \$10,713 |

Claim IV-11 Revise Temporary Detour Structures Foundations Due to Changes in Geotechnical Information and Bedrock Contours

On August 23, 2000, the JV received notification from geotechnical consultant EMI that, as a result of hillside stability analyses, foundations for Bents EB2 and EB3 must be changed from spread footings to pile footings.

On April 25, 2001, the JV received notification from EMI that, as a result of their reevaluation, bearing pressures for Bents EB6 to EB15 and WB15 to WB17 needed to be reduced from 4 ksf to 2 ksf and in many cases recommended changing to pile foundations. Considerable effort was expended in making the changes, which were incorporated in the 85 percent PS&E made on October 23, 2001. The additional effort was not included in previous price negotiations.

On August 20, 2001, the JV received a revised bedrock contour map, which necessitated revisions to spread footings WB3, WB4 and EB15A thru EB18A. It also necessitated revisions to the grading in the EB East-end tie-in area. This revision was subsequent to the effort reimbursed by Task Order No. 3, Supplement 3-4C.

| | |
|-----------------|----------|
| Claimed Amount | \$57,947 |
| Previously Paid | \$57,947 |

Claim IV-12 Revise Retaining Wall at Southgate Road Due to Alignment Changes

Southgate road realignment, which was completed by PB, impacted the previously designed retaining wall along Southgate Road. As a result, the retaining wall heights and layout were revised.

Retaining walls and grading in the vicinity of the Southgate Road passing under the Transition Structures were revised due to alignment and profile changes at Southgate Road.

The retaining walls and grading in the vicinity of Southgate Road areas was based on the 65 percent Roadway Plans submittal (received on February 8, 2000) and revised based on information received from the Department on September 7, 2000.

The retaining walls and grading were redesigned when further revisions were received from the Department on June 25, 2001.

| | |
|-----------------|----------|
| Claimed Amount | \$50,643 |
| Previously Paid | \$50,643 |

Claim IV-13 Perform Non-Linear Inelastic Analysis of Viaduct Footings

The JV was requested by the SPRP to do additional analysis of the joint shear design of the YBI viaduct widening footing. This analysis was not included in the fixed price.

The retrofitted viaduct structure consists of three sections separated by expansion joints. Lateral stability is provided by frame action, while longitudinal stability is achieved with shear walls on either side. Since the location of the walls is unsymmetrical, it was considered desirable to investigate possible torsional interaction between the viaduct frames tending to magnify the transverse behavior of the bent frames. The SPRP members suggested that a non-linear, inelastic time-history analysis of the combined structure be performed with proper modeling of gap elements at the expansion joints and non-linear properties at column hinge locations in order to better understand the structural behavior. The decision to perform the non-linear, inelastic time-history analysis was taken at the SPRP meeting of April 2, 2001. The work was completed and presented at the next meeting of May 2, 2001. The results showed that although there was some magnification of displacements in the transverse frames due to frame interaction, the resulting structural behavior was within acceptable limits.

The original contract limited the analysis of the viaduct to conventional elastic analysis techniques and, therefore, the non-linear analysis effort was additional work.

| | |
|-----------------|----------|
| Claimed Amount | \$67,199 |
| Previously Paid | \$58,434 |

Claim IV-14 Perform Inelastic Finite Element Analysis of Viaduct Footings

The JV was requested by the SPRP to do additional analysis of the joint shear design of the YBI viaduct widening footing. This analysis was not included in the fixed price. Additional inelastic finite element analysis was performed to justify joint shear design of viaduct widening footings to SSPRP members.

The viaduct left widening footings were designed in accordance with the current edition of the Department's Seismic Design Criteria. This involves checking the depth of the footing to ensure principal tensile stresses do not exceed $12 \cdot (f'c) \cdot 0.5$. No additional vertical reinforcement is required to be provided inside the column core. However, the JV provided an additional layer of reinforcement at mid height of the footing to increase joint shear strength.

The panel members concluded that the depth of the footing appeared shallow and requested backup to justify the JV design. This question was raised at the SPRP meeting held on April 27, 2001, where the viaduct design was first presented. The JV commissioned Anatech Inc. to analyze the junction of the column/footing region to evaluate if the design proposed by the JV was satisfactory for the over-strength moments and shears occurring at the joint.

Anatech performed the analysis on a half symmetry model with their ANACAP-U/ABACUS program, using solid non-linear elements for concrete and sub-elements explicitly representing the re-bars. Results and conclusions of the analysis were presented by Anatech, Inc. at the SPRP meeting on June 8, 2001, and are contained in their report submitted on June 13, 2001, to the JV. The overall conclusion was that the footing design as proposed by the JV will function adequately under seismic loading.

| | |
|-----------------|----------|
| Claimed Amount | \$16,705 |
| Previously Paid | \$13,784 |

Claim IV-15 Redesign Bike Path Hand Railing on EB On-Ramp and Transition Structures

Following the 65 percent submittal, the Department requested that the bike path hand railing on YBI Eastbound On-Ramp and Transition Structure be redesigned using square post to match the Skyway.

| | |
|-----------------|----------|
| Claimed Amount | \$21,426 |
| Previously Paid | \$21,426 |

Claim IV-16 Revise Bent W4R for Change in Bedrock Contours

Following the submission of the revised 65 percent PS&E and as a result of further field investigation by the geotechnical group, the Department received revised bedrock contours on August 20, 2001. This new information resulted in a redesign of the foundation for Bent W4R of the Eastbound Transition structure. This revision was subsequent to the effort reimbursed by Task Order No. 3, Supplement 3-4C.

| | |
|-----------------|---------|
| Claimed Amount | \$9,739 |
| Previously Paid | \$9,447 |

Claim IV-17 Revise Viaduct Foundations at Bents 45-47 Due to Change in Bedrock Contours

On August 20, 2001, the Department received revised bedrock contours as a result of further geotechnical soil investigation. The JV used this information to revise its foundation design and submitted the preliminary 90 percent PS&E on December 21, 2001. The foundations at Bents 45 to 47 were affected by this change. The additional effort was not included in the original fixed price.

| | |
|----------------------|---------|
| Claimed Amount | \$3,896 |
| Previously Paid Task | \$3,896 |

Claim IV-18 Evaluate Proposed Geometric Revisions to EB Detour and EB Transition Structure

During the course of the final design of the Eastbound On-ramp Structure, Transition Structures and Detour Structures, several discrepancies were discovered in the geometric layouts and contour grading. These issues are outlined in the JV's letters dated May 19, 2001, and August 3, 2001. Subsequently, several proposals to correct these discrepancies were received. During evaluation, additional discrepancies were encountered which required revised proposals to be reviewed. This evaluation process was particularly tedious in the vicinity of the Eastbound Detour tie-in where compatibility with a number of physical constraints must be reviewed.

This change request does not include efforts in revising the PS&E package, but only that effort expended in evaluating the acceptability of the proposed revisions..

| | |
|-----------------|----------|
| Claimed Amount | \$11,687 |
| Previously Paid | \$11,687 |

Claim IV-19 Revise Transition Structures Due to Geotechnical Changes in South Edge of EB Structure

The JV was required to revise the East bound Transition Structure girder layout due to an alignment change by PB. This redesign was not included in the fixed price.

| | |
|-----------------|----------|
| Claimed Amount | \$15,582 |
| Previously Paid | \$7,791 |

Claim IV-21 Redesign Transition Structures Due to Revisions to the Topo Survey

The JV was required to complete redesign work as a result of discrepancies found in the topographical survey.

Some discrepancies became known in the topo survey in the region of the YBI structures. The most recent contours do not match earlier ones and at some locations the ground surface is up to 1.5 meters different from the as-designed values.

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The Department was provided preliminary new topographic survey data on December 5, 2001, in selected areas. This new information differed from previous information and necessitated an update to the design primarily due to changes in the footing elevations and column heights. Based on the preliminary data, the difference in ground elevation is about 1.0 meter at Bents W9R and W8R of the Transition Structure and Bent W10R of the EB On-Ramp.

| | |
|-----------------|-----------|
| Claimed Amount | \$164,079 |
| Previously Paid | \$159,674 |

Claim IV-24 Unreimbursed YBI Structure Cost January 1, 2002 to June 30, 2003

This change request supports compensation for non-reimbursed efforts during the period from January 1, 2002, to June 30, 2003.

During the period from January 1, 2002, to June 30, 2003, efforts continued on the YBI Structures PS&E. On January 1, 2002, it was estimated that 1968 hours were required to complete the YBI Structures and, in addition, a total of 2858 hours was authorized during this period; however, actual efforts exceeded the estimated effort.

Work performed during this time frame included:

- Completion of YBI Structures PS&E along with 90 percent, 100 percent and Final Submittal No. 1 and corresponding responses to review comments
- Creation of YBI Viaduct (Retrofit) bid package along with submittals and responses to review comments
- Modifications to Transition Structures due to topo revisions
- Combining the YBI and SAS specifications and then separating them again
- YBI Structures Final Submittal No. 2

| | |
|----------------------------|-----------|
| Claimed Amount | \$812,857 |
| Proposed Settlement Amount | \$479,475 |

Oakland Approach Structures Change Request

Claim VII-1 Additional Effort for Redesign of EB Hinge E

At the Oakland Touchdown and the Skyway interface, additional work was required for the redesign of Hinge E. At the 85 percent PS&E, the design included the use of plate girder type hinge beams. The design was changed to utilize pipe beams, which resulted in a complete redesign of Hinge E. The JV seeks reimbursement for deleting the rectangular beams at Hinge E and replacing with hinge pipe beams.

| | |
|-----------------|-----------|
| Claimed Amount | \$187,861 |
| Previously Paid | \$80,833 |

Claim VII-2 Eastbound and Westbound Detailing Consistency

Two separate design companies designed the Eastbound and Westbound structures. The Department requested the additional effort be made to modify the plans to make the two structures details look

more uniform. The JV seeks reimbursement for additional effort in coordination of EB and WB Structures.

| | |
|-----------------|-----------|
| Claimed Amount | \$109,141 |
| Previously Paid | \$13,631 |

Claim VII-3 Redesign of Bike Path Hand Railing on EB Oakland Approach Structure

Following the 65 percent submittal, the Department requested that the bike path hand railing on the Eastbound Oakland Approach Structure be redesigned using square posts.

| | |
|-----------------|----------|
| Claimed Amount | \$18,941 |
| Previously Paid | \$18,941 |

Claim VII-4 Additional Study to Demonstrate the Effects of Lateral Solid Spread at Bents and Slab Bridge as recommended by the SSPRP

Due to the geologic conditions existing in the area (i.e., young bay mud overlaid by fill and underlain by a slightly sloping layer of dense sand), there is a tendency for the foundation materials to spread under a seismic event. The potential spreading could impose significant deformation demands on the piles, which the SSPRP felt warranted a special soil/structure interaction analysis to validate structural adequacy.

To demonstrate the adequacy of the foundation piling, custom software was developed to address the requirements of the analysis. Separate analytical tools had to be developed for dealing with lateral spread at the slab bridge and at the piled bents. The pinning action of the piles to enhance the soil structure interaction was incorporated into the analysis.

The results, demonstrating the adequacy of the pile foundations by allowing for pinning action of the piles, were presented to the SSPRP in Memo No. 6.2.5 on December 22, 1999.

| | |
|-----------------|----------|
| Claimed Amount | \$19,478 |
| Previously Paid | \$17,530 |

Claim VII-5 Unreimbursed OTD Structure Cost January 1, 2002 to Expedite LAN & M&N

This Change Request supports compensation for non-reimbursed additional efforts.

There are several reasons for the submission of this change request:

1. Considerable additional effort was required to coordinate with PB and the Department (District and Mechanical) to successfully address utility related issues. The utilities were reconfigured due to significant changes in the Hinge E components. WARs 564 and 565 issued previously by the Department had authorized only a meeting held on December 19, 2002 at the PB Office in San Francisco (\$16,177).
2. When the original change request CR-1 relating to the Hinge E modifications was submitted, it was envisioned that the change to the Hinge E hardware would influence the region around

- the Hinge E itself. In fact, when the combined analysis of the coupled structure was made, it became apparent that due to the much-reduced stiffness of the components, the Oakland approach structures would need redesign. This effort was not included in the earlier request (\$46,924).
3. Numerous meetings with the JV were held to address all of the Department's comments. Constant interaction with JV team members (TY Lin, M&N, WKA and LAN) was necessary to ensure a consistent design. This effort went beyond what was anticipated when the Department estimated the effort required for Hinge E in Change Request VII.1 (\$8,872).
 4. Extensive cooperative efforts with District 4 were required to ensure consistency between civil and structural plans. Pursuant to the District's direction, the Department added architectural treatment on the faces of both the abutments to match the cellular concrete fill (\$2,855).
 5. Significant delays to the project completion date contributed to not being able to maintain personnel continuity during the course of the project. This led to additional costs in the design efforts. Personnel salary adjustments and change in overhead rates over the years contributed to significant cost increases (\$35,000).

| | |
|-----------------|-----------|
| Claimed Amount | \$320,000 |
| Previously Paid | \$170,882 |

Claim VII-6 Unreimbursed OTD Structure Cost January 1, 2002 to Expedite WKO & M&N
The JV seeks reimbursement for Hinge E revisions and inefficiencies due to delay.

Additional efforts related to the WB Structure include:

1. WB Oakland Approach – Hinge E Reanalysis.
2. Additional interface and new analyses were needed for Hinge E (joint with Skyway) on the Oakland Approach WB Structure after the 85 percent design package was completed. The original design by the JV used built-up steel girder to couple the Skyway and the Oakland Approach Structure. The design was changed to use pipe beams.
3. WB Oakland Approach – Hinge E redesign.
4. As a result of the new Hinge E analyses, the Oakland Approach structure was redesigned to reflect the changed Hinge E section and its effect on the superstructure and substructure stiffness. The redesign effort affected the girder and diaphragm sections close to Hinge E, post-tensioning of Frames 1 and 2, and columns due to secondary effect.
5. Additional cost associated with project delay.
6. As a result of the delay of the Oakland Approach contract, the prolonged project duration affected the JV's ability to perform the project design as it had planned. Changes in personnel and intermittent gaps in work progress made the progress less efficient.
7. Hinge E changes by the JV had significant affects on the structural behavior of the Oakland structure. The Oakland structures were designed concurrently with the Skyway Structures. The originally conceived design by the Skyway team used much stiffer built-up steel beam elements to couple the Skyway with the Oakland Structures. The design by the Oakland Approach team used the details to complete the 85 percent design calculations and analysis of Frame 1 (span 16 through 19). As a result of the changes to the Hinge E with pipe keys, the reduced stiffness required new static and dynamic analyses of the Oakland Structure.

8. The resulting changes on Hinge E affected the Frame 1 and 2 designs because of the changes in stiffness at the Hinge E altered the stress distribution under both gravity loads and dynamic loads for the west two frames on the Oakland Structures. Design calculations were revised for the Frames 1 and 2 superstructure and substructure design, as well as the changes to the plans and details for girder prestressing and diaphragm reinforcement at the hinge.
9. Many project delays were beyond the JV's control. The delay of the final PS&E for almost 30 months created a number of logistic difficulties to the design team because members of the original teams had left the project. Additionally, the discontinuity built in inefficiency in the design and plan preparation. As well, the delay added higher administrative cost to the project, and labor rates and overhead rate changes affected the cost of the project.

| | |
|-----------------|-----------|
| Claimed Amount | \$204,212 |
| Previously Paid | \$198,486 |

Summary:

Currently, the total outstanding claim amount is \$12,219,460.00. Based upon the analysis contained in this report, a proposed settlement of \$4,934,889 is recommended. This proposed settlement would fully resolve all outstanding issues with the JV relative to Phase Two design. The Project Manager, the Design Manager, and the Contract Manager recommend these issues be resolved as proposed by this report.

Chief Engineer
November 28, 2005
Page 26 of 26

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Settlement Recommended:

JON TAPPING, Interim
SFOBB East Span Project Manager

Recommend Approval:

BOB BUCKLEY
Chief, Division of Engineering Services

Recommend Approval:

BIJAN SARTIPI
District 4 Director

APPROVED:

RICHARD LAND
Chief Engineer

Settlement Recommended:

ADE AKINSANYA
Contract Manager

Recommend Approval:

JOSE AGUIRRE
Chief Legal Counsel

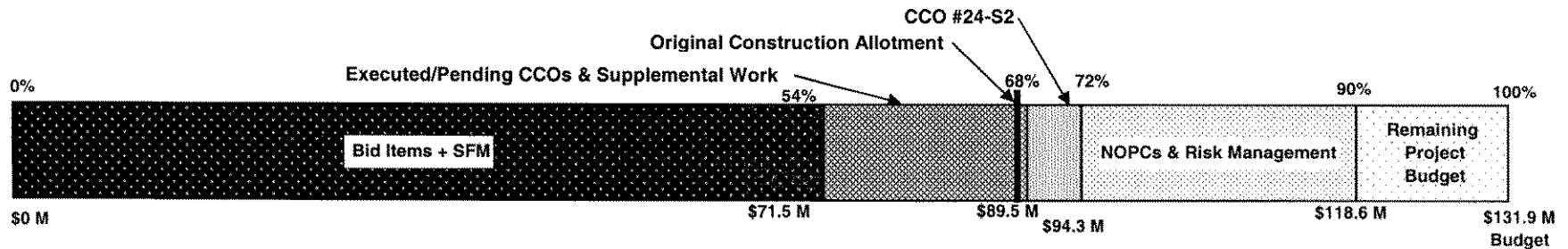
Item6b
Addendum #5 Approval

ADDENDUM 5 **04-0120F4**

| ADDENDUM ITEM | Change Request # | SUBJECT | DESCRIPTION | B.I. # | TYPE OF CHANGE | | |
|------------------|---------------------|--|---|--------|----------------|-------|-------|
| | | | | | PLANS | SPECS | OTHER |
| 1 | B51 | Spec change to modify working day milestones to accommodate a 6-month extension | Section 4 "BEGINNING OR WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES", Section 5-1.18 "AREAS FOR CONTRACTOR'S USE" and Section 10-1.01 "ORDER OF WORK" | | | ✓ | |
| 2 | 19 | Performance spec change to allow for alternative designs on castings (particularly saddles) | 1) Section 10-1.59 "STEEL STRUCTURES", subsections: "WORKING DRAWINGS", "CASTINGS", "MEASUREMENT AND PAYMENT", and add new subsection called "ALTERNATIVE SADDLE DESIGN"; 2) Plan sheets 790A, 790B, 790C, 790D | | ✓ | ✓ | |
| 3 | 37 | E2 shear key bearing system redesign | 1) Section 10-1.47 "SPHERICAL BUSHING BEARING (PIER E2)", subsections: "WORKING DRAWINGS" and "FABRICATION AND INSTALLATION"; 2) Section 10-1.50 "SHEAR KEY (PIER E2)", subsections: "WORKING DRAWINGS", "MATERIALS" and "FABRICATION AND INSTALLATION"; 3) Section 10-1.59 "STEEL STRUCTURES", subsection "ASSEMBLY", subsection "Box Girder"; 4) 50 revised plan sheets | | ✓ | ✓ | |
| 4 | 58 | Make north side of Oakland Touchdown available for SAS contractors (parking and boat access) | Section 5-1.18 "AREAS FOR CONTRACTOR'S USE" | 54 | | ✓ | |
| 5 | 139 | Lessons learned from Skyway regarding Hinge K forging: other methods will be allowed, if they meet specified properties | 1) Section 10-1.59 "STEEL STRUCTURES", subsections: "MATERIALS", "FABRICATION", "WELDING OF HPS485W STEELS", and "WELDING OF GRADE 690 STEELS"; 2) 7 revised plan sheets | | ✓ | ✓ | |
| 6 | 145 | YBI joint interface (hinge K) schedule improvement (removal of milestone 1) | 1) Section 4 "BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES", 2) Section 5-1.18 "AREAS FOR CONTRACTOR'S USE", 3) Section 10-1.01 "ORDER OF WORK", 4) Section 10-1.26 "MAINTAINING TRAFFIC", 5) C-3 district plan sheet, and 6) several structures plan sheets | | ✓ | ✓ | |
| 7 | 151 | Modify the special provisions to clarify that partial payment for fabricated steel items, in addition to plate steel, will be provided | Section 5-1.25 "PAYMENTS" | 188 | | ✓ | |
| 8 | 156 | Modify "ESTABLISH MARINE ACCESS" spec to allow for earlier payment for design and fabrication costs | Section 10-1.25 "ESTABLISH MARINE ACCESS" | 222 | | ✓ | |
| 9 | 157 | Modify "ORDER OF WORK" spec to clarify template's location and availability schedule | Section 10-1.01 "ORDER OF WORK" | 145 | | ✓ | |
| 10 | 158 | Remove weight control procedure requirement prior to beginning working drawings | Section 10-1.17 "ACCELERATED WORKING DRAWINGS SUBMITTAL" | Old 69 | | ✓ | |

Item8a
CCO 24 - Time Extension

**SOUTH-SOUTH DETOUR (04-0120R4)
CONTRACT CHANGE ORDER 24-S2
BUDGET ANALYSIS**



ORIGINAL CONSTRUCTION ALLOTMENT

| | |
|--|------------------|
| Contract Items (plus quantity over runs) | \$ 71,159,650.00 |
| State Furnished Materials (SFM) | \$ 379,000.00 |
| Sub-Total | \$ 71,538,650.00 |
| Contingency | \$ 4,266,350.00 |
| Supplemental Funds | \$ 14,115,000.00 |

Original Construction Allotment \$ 89,920,000.00

Current Budget \$ 131,920,000.00

FORECAST FINAL EXPENDITURES

| | |
|--|------------------|
| Contract Items (plus quantity over runs) | \$ 71,159,650.00 |
| State Furnished Materials (SFM) | \$ 379,000.00 |
| Sub-Total | \$ 71,538,650.00 |
| CCOs (Exec. + Pend. - Sup. Work CCOs) | \$ 3,873,434.00 |
| Supplemental Work | \$ 14,115,000.00 |

CCO #24-S2

| | |
|--------------------------|------------------------|
| Sub-Total | \$ 89,527,084.00 |
| CCO #24-S2 | \$ 4,812,632.00 |
| Sub-Total | \$ 94,339,716.00 |
| NOPCs & Risk Management | \$ 24,219,500.00 |
| Remaining Project Budget | \$ 13,360,784.00 |

Forecast Final Expenditures \$ 131,920,000.00

Item9-1
Review of BATA Organization
memo



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Memorandum

TO: Toll Bridge Program Oversight Committee

DATE: 12/12/2005

RE: A. Fremier

RE: BATA Staffing

Please find attached an organizational chart showing BATA's staff resources for the toll bridge capital programs. As shown in the chart, the staffing includes:

1. A total of 5.3 BATA FTEs and the Bay Area Management Consultants (BAMC) services to provide project controls and oversight activities for the Toll Bridge Seismic Retrofit Program and the Regional Measure 1 capital programs. The project oversight staff and activities is led by Andrew Fremier, Deputy Executive Director for BATA. As shown in the organizational chart, three BATA engineering positions are currently vacant. At present, BATA is conducting a recruitment for the Senior Engineer position for the Seismic and RM 1 programs.

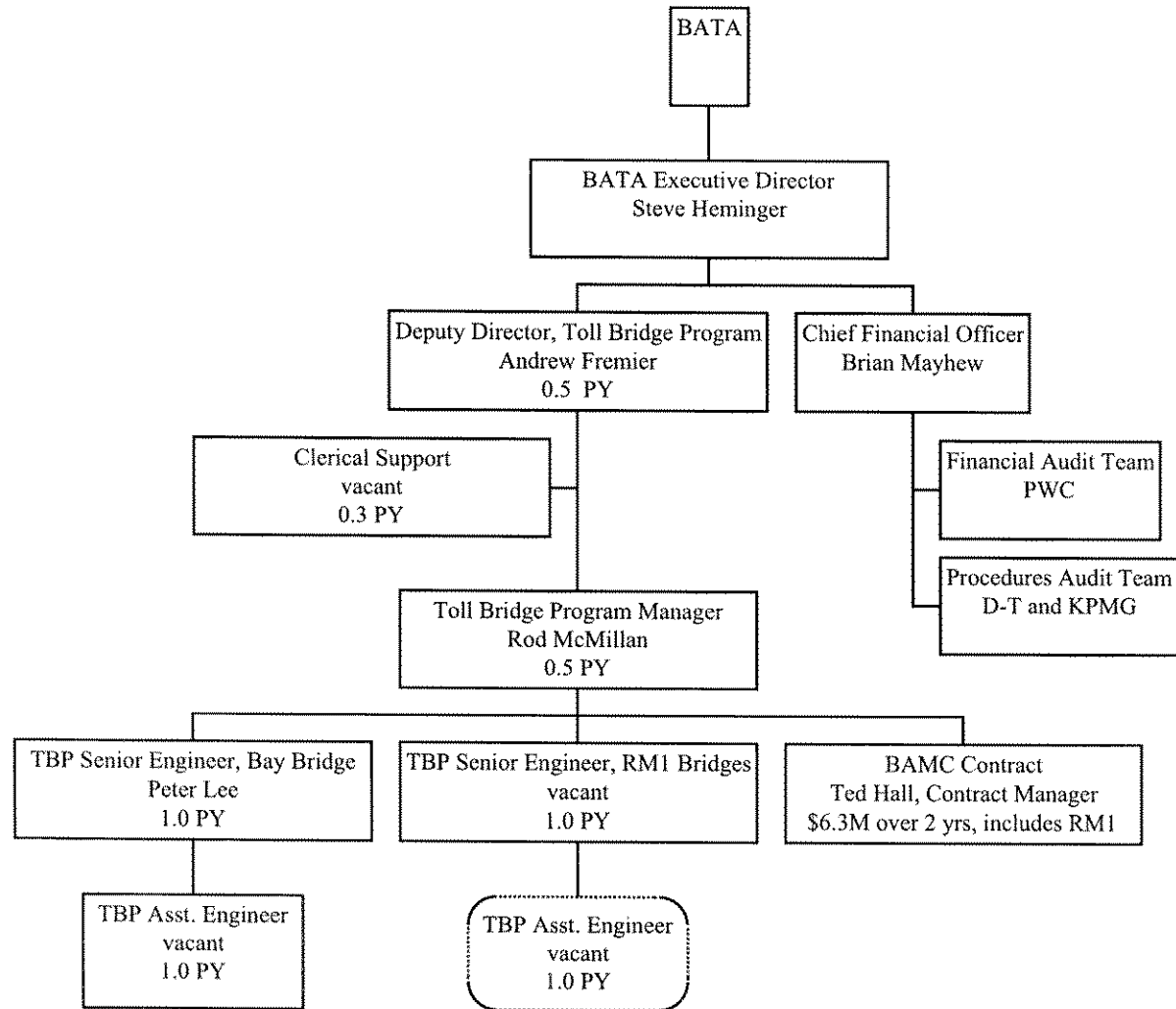
The BAMC services include approximately 10 FTEs to provide oversight activities for the seismic program and RM 1 capital projects, project reporting activities (Monthly and Quarterly Reports), and on-call services, which includes access to subject matter specialist to examine aspects of the projects on an as needed basis (e.g. hinge pipe beam fabrication review). BAMC currently has staff located in the field for the Bay Bridge East Span project and the Benicia-Martinez projects. This field staff provides reviews of project budgets, schedules and change orders and assists in the identification and analysis of potential project issues. The total budgeted amount for the BAMC services is approximately \$3,000,000 for FY 2005-06.

2. The chart also indicates the staffing for the BATA's financing responsibilities for the toll bridge program. Pursuant to AB 144, BATA has the responsibility for the collection and accounting of toll revenues on the state-owned bridges and the funding of the of toll bridge projects. BATA's Finance Section is led by Brian Mayhew, BATA's CFO. The Finance Section contracts with Pricewaterhousecoopers for auditing services and with Deloitte and KPMG to provide capital project close-out audits and other program and project auditing services, on an as needed basis.

It should also be noted that BATA has additional staffing related to the operations of the toll bridges, including toll accounting and FasTrak operations staffing.

Item9-2
BATA Organization Chart

**Toll Bridge Program Organization
BATA Staff for Toll Bridge Program Oversight Committee
Proposed**



This position may transfer to the CTC